Studer Cables
Connected to HARTING

Cable Solutions for Inverters

BETAtherm® Single-Core for Maximum Fire Protection Properties

To ensure that inverters and energy converters work reliably, they require robust, halogen-free core cables that can withstand overloads and high temperatures while offering the highest fire protection properties. The **BETA**therm® single-core from Studer Cables protect inverters and energy conversion systems efficiently and sustainably.

For the highest safety and quality standards

The legal requirements in the area of fire protection are constantly being tightened. By using cross-linked insulating materials, our products make a decisive contribution to fire prevention in electrical systems. They are ideal for:

- Internal wiring in inverters and energy conversion systems
- Appliances and machines (thermal class B and F)
- Switchgear and distribution boards

Our core cables combine operational safety and sustainability and meet the highest standards for fire protection.

Innovative materials and customized solutions

Thanks to our high level of vertical integration and proven Swiss quality, we not only offer standardized products, but also customer-specific solutions that are perfectly tailored to your requirements. In our laboratories, we continuously develop innovative polymer plastics that are used in the production of our cables.

The advantages of our single-core at a glance:

- Best insulating properties
- Good performance with temperature fluctuations
- Longer service life
- Easy handling
- Additional security features

Swiss made

Advantages

- Very high temperature resistance
- Operating temperature −55 °C to +155 °C
- Sustainable due to very long service life (220'000 h at 90 °C, 5'000 h at 155 °C)
- Highest fire protection properties
- Short-circuit-proof (resistant to thermal pressure)
- Electron beam cross-linked
- Halogen-free (with exception of the BT 155)
- Sustainable
- Fire class BauPV / CPR
- Various approvals (UL 3271/3820, UL/cUL CSA, UL/cUL 3289, DNV, VDE)

Secure solutions for a green energy future

Photovoltaic systems play a key role in sustainable energy supply. With the increasing demand for green energy systems, the need for safe and efficient inverters and energy conversion systems is also growing. These systems optimize the conversion of DC voltage into AC voltage (or vice versa) for public grids and households and they contribute to ever higher efficiencies and current flows. However, increasing efficiency goes hand in hand with higher temperatures and increased utilization of the infrastructure, which requires reliable components.

Our electron-beam cross-linked core cables are specially developed for these challenges. They offer:

- High temperature resistance
- Short-circuit protection
- Optimized fire protection

Sustainable and future-proof

Rely on our products for the safe, sustainable and future-oriented wiring of your inverters and energy conversion systems. Our solutions combine efficiency, long service life and proved safety standards.

Single-core

	Nominal voltage	Temperature range	Cross sections	Certifications
BETAtherm® 145	600 / 1000 V	−55 °C to +145 °C	0.25 mm² to 300 mm²	VDE, DNV/GL, Lloyd's Register, BUREAU VERITAS, CPR
BETAtherm® 155	600 / 1000 V	−55 °C to +155 °C	0.25 mm² to 150 mm²	

Single-core with UL certification

	Nominal voltage	Temperature range	Cross sections	Certifications
BETAtherm® 145 UL/CSA 3266	300 V	−55 °C to +145 °C	AWG24 to AWG12	UL, CSA
BETAtherm® 145 UL/CSA/cUL/ 3271/3820	1000 V	−55 °C to +145 °C	0.25 mm² to 240 mm²	UL, CSA, cUL
BETAtherm® 155 UL/cUL 3289	600 V	−55 °C to +155 °C	0.25 mm² to 120 mm²	UL, cUL

Further information can be found in our data sheets on our website: **https://studercables.com/en/products/**

In addition to first-class products, Studer Cables offers comprehensive advice, precise calculations and other services. If you have any questions, please do not hesitate to contact us personally.

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